UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,985	09/26/2001	Andrew Fertlitsch	SLA1004	2966

52894   7590   03/01/2011
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EXAMINER
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ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
03/01/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	09/964,985	FERTLITSCH ET AL.
	Examiner	Art Unit	
	BENJAMIN O. DULANEY	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _18 March 2010_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _11-24_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _11-24_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 11, filed 3/18/10, with respect to the rejection(s)

of claim(s) 11-24 under 35 U.S.C. 103(a) have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of U.S. patent 6,914,693 by

Kirkeby.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11, 18, 23 and 24 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention. The limitation "despooling … is performed *asynchronously* and in

parallel" does not appear to be disclosed by the specification, correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claim 11 recites the limitation "said computing device" in the 2nd line of the 4th

paragraph, the 1st line of the 7th paragraph and the 1st line of the 8th paragraph.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent
Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex
IV, reads as follows:

In contrast, a claimed computer-readable medium encoded with a computer program is a
computer element which defines structural and functional interrelationships between the
computer program and the rest of the computer which permit the computer program's
functionality to be realized, and is thus statutory See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at
1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as frequency,
voltage, or strength of a magnetic field, define energy or magnetism, per se, and as such are
nonstatutory natural phenomena. O'Reilly, 56 I.S. (15 How.) at 112-14. Moreover, it does not
appear that a claim reciting a signal encoded with functional descriptive material falls within any
of the categories of patentable subject matter set forth in Sec. 101.

...a signal does not fall within one of the four statutory classes of Sec 101.

...signal claims are ineligible for patent protection because they do not fall within any of the four
statutory classes of Sec. 101.

Claim 24 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter as follows. Claim 24 is drawn to functional

descriptive material recorded on one or more computer readable media. A computer

readable medium can be defined as encompassing statutory medium, but it also

encompasses non-statutory subject matter such as a signal or carrier wave.

A "signal" embodying functional descriptive material is neither a process nor a

product (i.e., a tangible "thing") and therefore does not fall within one of the four

statutory classes of §101. Rather, "signal" is a form of energy, in the absence of any

physical structure of tangible material.

Because the full scope of the claim encompasses non-statutory subject matter,

the claim as a whole is non-statutory. The examiner suggests amending the claim to "a

non-transitory computer readable medium comprising instructions ...". Any amendment

to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1)   Claims 11-13, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. Patent 5,287,194

by Lobiondo, and further in view of U.S. patent 6,914,693 by Kirkeby.

2)   Regarding claims 11, Takahashi teaches a method for distributing a print task

among a plurality of printing devices, said method comprising: receiving a print task at a

print system component (column 18, lines 33-41; print tasks are received at a server

102); receiving user input comprising a cluster printing selection at said print system

component, wherein said selection identifies specific printing devices and

communicates a specific quantity of printing devices (Column 22, lines 30-37; Figure 20;

multiple printers for a cluster print can be selected); combining said print task with said

cluster printing selection using said print system component on said computing device

thereby creating driver-dependent data (column 26, lines 22-26; command data,

including destination data is sent with image data thereby forming printing data that is

driver-dependent [because destinations are already set and only the specific driver/RIP

for a specific printer will work]); transmitting said driver-dependent data to a printer

driver (figure 14, items 1203a, 1203b, etc. are RIPs that can be interpreted as drivers);

creating spool data from said driver-dependent data (column 29, lines 41-45; "spool"

data is temporarily stored pre-RIP) , using said printer driver, wherein said spool data

consists of a print ticket specifying capability requirements (column 26, lines 22-26;

"capability requirements" [such as size, scale, sheet data] are attached to all print data)

of the print task and the driver-dependent data, and wherein said spool data is

compatible as input to specific printer drivers corresponding to each of said specific

printing devices (column 30, lines 1-25; spool data is compatible with the corresponding

RIPer which in turn corresponds to a printer, i.e. color data for the color printer);

determining, with said print system component on said computing device, portions of

said spool data to be distributed to each of said specific printing devices (column 29,

lines 21-40; data is distributed between MFPs 104 and 105); said distribution results in

creation of distributed spool data portions and wherein said despooling further

comprises concurrent parallel playback (column 25, lines 20-30; despooling to multiple printers is "simultaneous" and therefore is concurrent and parallel) of said spool data portions to said specific print drivers corresponding to each of said specific printing devices (column 18, lines 53-65; each RIP creates data for a specific printer), wherein each of said specific printer drivers converts said distributed spool data portions into device dependent data portions compatible with said corresponding specific printing devices and each of said specific printer drivers spools said device-dependent data portions to said print system component (Column 30, lines 23-26; RIPed data is sent to specific devices depending upon selections, in this case color data goes to the color printer and b/w data goes to the b/w printer); despooling, with said print system component, said device-dependent data portions to said specific printing devices, wherein said despooling with said system component is performed in parallel (column 25, lines 20-30; despooling to multiple printers is "simultaneous" and therefore is parallel).

Takahashi does not specifically teach determining, with said print system component on said computing device, the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device's output capacity; and despooling is performed asynchronously and in parallel.

Lobiondo teaches determining, with said print system component on said computing device, the output capacity of said specific printing devices; and despooling

said spool data in accordance with said cluster printing selection wherein said

despooling comprises distribution of said print task to said specific printing devices in

substantial proportion to each of said specific printing device's output capacity (column

4, lines 58-64; column 5, lines 45-62).

Takahashi and Lobiondo are combinable because they are both from the

distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Takahashi and Lobiondo to add determining a rate of

printing speed. The motivation for doing so would have been to provide "optimum

scheduling" (Column 2, line 41).

Kirkeby teaches server processing of transmissions are performed

asynchronously and in parallel (column 6, lines 56-58; figure 3; asynchronous

transmissions from the server of Kirkeby could be incorporated into the server 102 of

Takahashi).

Takahashi and Kirkeby are combinable because they are both from the network

printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine Takahashi and Kirkeby to add asynchronous

processing. The motivation for doing so would have been to "multitask" and thereby

use resources that would otherwise be idle (column 6, line 60).

Therefore it would have been obvious to combine Takahashi with Lobiondo and

Kirkeby to obtain the invention as specified by claim 11.

3)   Regarding claim 12, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus (column 4, lines 16-64).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 12.

4)   Regarding claim 13, Takahashi teaches the method of claim 11 wherein said determining the output capacity comprises querying a network printer using a network communications protocol (Column 24, lines 19-37).

5)   Regarding claim 15, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry (column 3, line 68 – column 4, line 3).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 15.

6)   Regarding claim 16, Takahashi teaches the method of claim 11 wherein said print system component comprises a print processor (Figure 1).

7)   Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Kirkeby) as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima.

8)   Regarding claim 14, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a printer driver.

Fukushima teaches the method of claim 11 wherein said determining the output capacity comprises querying a printer driver (column 17, lines 1-9).

Takahashi and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be

followed"(column 17, line 8). Therefore it would have been obvious to combine

Takahashi to obtain the invention as specified in claim 14.

9)   Regarding claim 17, Takahashi does not teach the method of claim 11 wherein

said determining the output capacity comprises estimating the capability of some of said

multiple printing devices.

        Fukushima does teach determining the output capacity comprising estimating the

capability of some of said plurality of printing devices (column 17, lines 1-9).

        Takahashi and Fukushima are combinable because they are from the printer-

networking field of endeavor.

        It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify Takahashi by Fukushima to estimate capabilities. The

motivation for doing so would have been to determine "that the printing speed can be

followed"(column 17, line 8). Therefore it would have been obvious to combine

Takahashi with Fukushima to obtain the invention as specified in claim 17.

10)   Claims 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S.

Patent 5,287,194 by Lobiondo, and further in view of U.S. patent 6,914,693 by Kirkeby,

and further in view of U.S. patent 6,624,909 by Czyszczewski et al.

11)   Regarding claims 18, 23 and 24, Takahashi (as modified above by Lobiondo and

Kirkeby) teaches all the limitations as disclosed above in the rejection of claim 11 with

the exception of: a print system component, which resides on a computing device from which said print task originates.

Czyszczewski teaches a print system component, which resides on a computing device from which said print task originates (column 7, lines 54-56; print server can have a user interface for inputting print job selections).

NOTE: The secondary reference, Czyszczewski, is used to show that it is well known in the art to originate/initiate a print task from a server device (plainly taught in column 7, lines 54-57, GUI at the server can initiate a print job) and can be combined with the server of Takahashi to produce a server that can both originate a print task and perform all the listed processing of the claim elements

Takahashi and Czyszczewski are combinable because they are both from the printing field of endeavor.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to combine Takahashi with Czyszczewski to add a user interface at a server. The motivation for doing so would have been "to select a document to print" (column 7, line 56). Therefore it would have been obvious to combine Takahashi with Lobiondo, Kirkeby and Czyszczewski to obtain the invention as specified by claims 18, 23 and 24.

12)   Regarding claim 19, Takahashi does not teach the method of claim 18 wherein said throughput comprises a printer's speed in PPM.

Lobiondo teaches the method of claim 18 wherein said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

Takahashi and Lobiondo are combinable because they are both from the
distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the
invention was made to combine Takahashi and Lobiondo to add determining a rate of
printing speed. The motivation for doing so would have been to provide "optimum
scheduling" (Column 2, line 41). Therefore it would have been obvious to combine
Takahashi with Lobiondo to obtain the invention as specified by claim 19.

13)   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over
Takahashi (as modified by Lobiondo, Kirkeby and Czyszczewski) as applied to claim 18
above, and further in view of U.S. Patent 6,665,082 by Takeoka et al.

Takahashi does not teach the method of claim 18 wherein output capacity
comprises a determination of a printing device's disk storage capacity.

Takeoka does teach the method of claim 18 wherein output capacity comprises a
determination of a printing device's disk storage capacity (Column 3, lines 11-25;
Column 9, line 66 – Column 10, line 13).

Takeoka and Takahashi are combinable because they are from the same art of
printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the
invention was made to modify Takahashi by Takeoka to determine output capacity
comprising determination of printing storage capacity. The motivation for doing so
would have been to "determine the amount of image data included in a packet" (Column

3, line 18). Therefore it would have been obvious to combine Takahashi and Takeoka

to obtain the invention as specified in claim 20.

14)   Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Takahashi (as modified by Lobiondo, Kirkeby and Czyszczewski) as applied to

claim 18 above, and further in view of U.S. Patent 6,891,632 by Schwartz.

15)   Regarding claim 21, Takahashi does not teach the method of claim 18 wherein a

determination of said output capacity comprises an analysis of a printing device's

rasterization pipeline.

        Schwartz does teach the method of claim 18 wherein a determination of said

output capacity comprises an analysis of a printing device's rasterization pipeline

(Column 3, lines 3-22; Column 10, lines 1-10).

        Schwartz and Takahashi are combinable because they are from the same art of

printing.

        It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify Takahashi by Schwartz to analyze a printing device's

rasterization pipeline. The motivation for doing so would have been to "utilize available

resources most effectively" (Column 3, lines 29-30). Therefore it would have been

obvious to combine Takahashi with Schwartz to obtain the invention as specified in

claim 21.

16)   Regarding claim 22, Takahashi does not teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task (Column 3, lines 3-22; Column 10, lines 1-10; Column 3, lines 29-30).

Schwartz and Takahashi are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Takahashi with Schwartz to obtain the invention as specified in claim 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN O. DULANEY whose telephone number is (571)272-2874. The examiner can normally be reached on Monday - Friday (10am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin O Dulaney/
Examiner, Art Unit 2625

/David K Moore/
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